VACRON
ADVANCES IN SECURITY SOLUTIONS

Hardware Manual

G series

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A. CAUTION

To our dear customers!

Thank you for using our products. If you encounter any problems when using, please do not hesitate to contact our resellers. We will provide excellent services to you via our resellers.

The software/hardware improvements of this series are subject to change without notice to you in advance. Before using, please read this user manual carefully to ensure that you can use the device correctly and safely

Caution for this DVR series

- After installation, never put anything heavy over this device. Owing to the use of the hard drive(s) insides this device, check the cooling fan periodically to see if it works. Never use this device when the cooling function is out of order!
- Do not allow any solid object or liquid fall into or penetrate into the device.
- Use cleaning tools (brushes) regularly to clean circuit boards, connectors, fans, chassis, etc. Before cleaning, turn off the power and unplug the power.
- Do not attempt to disassemble the equipment, repair, or replace parts. In case the machine does not work properly, please contact the resellers or manufacturers. In the shortest time, we will solve the problems you have during using.
- When not using the remote control for a long time, take out the inside battery To prevent the control from the damage coming from battery leakage!

If this equipment connects to outdoor cameras or other external alarm devices, ground this equipment to prevent it from electrical surges.

- This DVR supports remote video monitoring via internet. Free or non-free domain names provided by ISPs are needed for the monitoring functions. Free domain names may sometimes have problems and nothing to do with DVR. Non-free domain names have less problems. Choose the domain names carefully before using the networking function.

Operating environment

- Keep and use this device at places where temperature ranges 0℃~40℃. Avoid direct sunlight or near heat sources.
- Do not install this equipment in a humid environment
- Do not expose this equipment in smoky, dusty environments;
- Avoid strong collision, do not drop the machine
- Keep the installation level, install in a stable place, avoid the product falling;
- Do not block any ventilation openings. And ensure well ventilation around the machine
- Please use this equipment within rated input and output current/voltage range.
- This device is for long-time use. For safety, do not have flammable items placed next to the device.

B. Introduction

1. Product Overview

   This equipment is an excellent digital surveillance product designed specifically for the security use. Using embedded LINUX operating system, it makes the system more stable. Using standard H.264 video compression and G.711A audio compression technology achieves audio and video functions such as high-quality, low bit rate and single-frame playback. Using TCP / IP and other network technologies, it provides strong network data transmission capacity and remote control capabilities.

   This equipment can be used individually or be connected to form a powerful security monitoring network. Using professional network video surveillance software platform, be fully experienced the powerful networking and remote monitoring capabilities.
   This equipment can be used for security in banks, telecommunications, power stations, justice, transport, intelligence communities, factories, warehouses, resources, water conservancy facilities and other categories.

2. Main functions
   - Pentaplex Operation: which can Record / Playback / Remote Connection / mobile phone watch / video backup
   - Support 2 fixed internal Hard Drives, single hard drive can be up to 4TB.
   - Support RAID recording to protect important video data.
   - Support HD output
   - Support real-time recording and playback
   - Smart function: Motion detection area can be divided into (16x12) sub-areas.
   - Support IE/Chrome/Firefox/Safari. On-line recording/playback and user management are available.
   - Support HTTP, DHCP, DDNS, NTP, SMTP, FTP, DNS, UPNP, PPPoE, IP rights, IP search and other Internet services
   - Support iPhone, Android including live video monitoring, playback.
   - Support CMS(Central Management System)
   - Back-up to USB storage at the same time when recording
   - Support analog/digital modes to record analog/digital signals at the same time(unavailable for certain model)

C. Unpacking

1. Accessories
   - ★ Quick guide x 1pcs
   - ★ Power cable and adaptor AC100-240V/DC12V 2A x 1PCS
   - ★ HDD screws x 4pcs
   - ★ Operation CD x 1pcs
   - ★ Remote control x 1 pcs
   - ★ Mouse (optional)

2. Unpacking

When you receive the product, check first whether the packing of the equipment has obvious damage. The protective material used for the package during transport can cope with most of the accidental impact;

Then, take out the device, remove the protective film of the digital video recorder and check if there is any visible damage;
Finally, open the case, check the front panel data cable, power cord, power supply fan and motherboard to see if they are connected firmly.

- Front/Rare panels

The key functions of the front panel and the interfaces of the rear panel are described in detail in the manual.
Please carefully check the plate or foil on the rear panel of the product to see if it is the model you ordered.
Information on the rear panel is important for our service, so keep it properly. Before contacting us, you will need to provide your model type and serial number.

- Inside check

In addition to checking for visible signs of damage, be careful to check the connections between the front panel data cable, power cord and motherboard.

D. Installation

Steps and cautions:
1、Ensure room temperature below 35℃
2、Reserve space for air circulation around 15 cm (6 inches).
3、Chassis installation starts from bottom to up
4、With multiple components in the chassis, take precautions to avoid overloading to the power outlet.

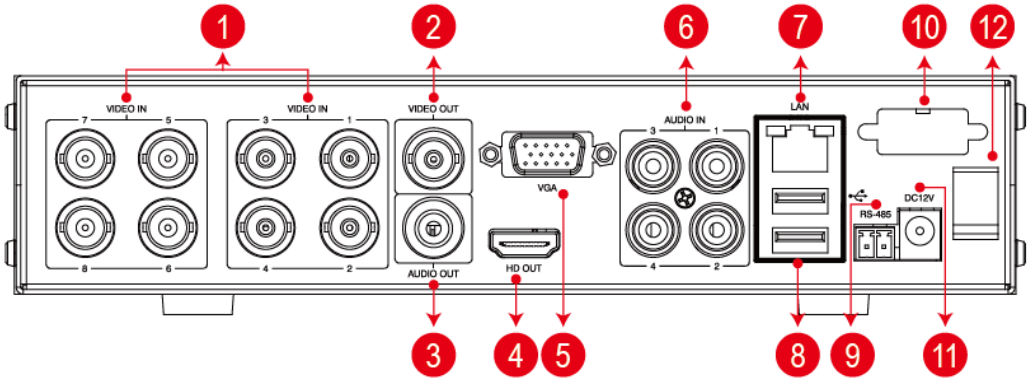
E. Product appearance

1. Front Panel

ESC	ESC	Exit the current menu.
●	REC	Under the live mode, press the REC button to enter recording menu.
▶|	Step Forward	To playback frame by frame when paused in playback mode. (Press Pause before operation)
▶/II	Play Pause	Under the live viewing mode, press the Play button to enter the playback mode and backup mode. Under the playback mode, press to play back. When playbacking, press to pause playback.
▶▶	Fast Forward	Under the playback mode, there are 4 choices for the speed. Choose your choice to forward.
|▶	Slow Forward	Under the playback mode, there are 4 choices for the speed. Choose your choice to forward.
▲ ▼	UP DOWN	To move up or down of the selection setting in the UI menu. Under the live mode of Single/Quad/8/9 display, use the button to control video display.
◀ ▶	LEFT RIGHT	To move left or right of the selection setting in the UI menu. Under the living mode, change to Single/Quad/8/9 division display.
🕮	Menu	Under the live viewing mode, press MENU to enter the main menu.
⊞	Preview CH1/5	Preview CH1/CH5. Press this button to switch CH1/CH5.
⊞	Preview CH2/6	Preview CH2/CH6. Press this button to switch CH2/CH6.
⊞	Preview CH3/7	Preview CH3/CH7. Press this button to switch CH3/CH7.
⊞	Preview CH4/8	Preview CH4/CH8. Press this button to switch CH4/CH8.
POWER ◎	Power Indicator	Power Indicator
REC ○	Recording Indicator	Recording Indicator
LAN ○	LAN Indicator	LAN Indicator (When users use network functions, it will be turned on.)

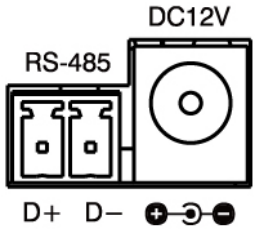
2. Rear Panel

8ch DVR illustration

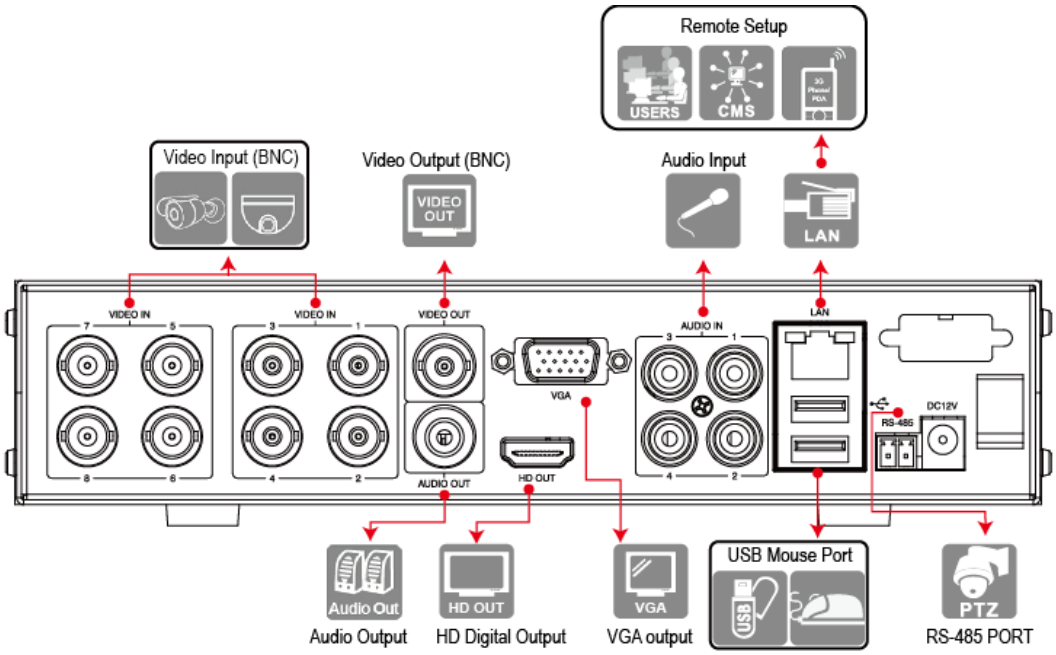


1	1~8 CH Video Input (BNC)
2	Video Output (BNC)
3	Audio Output (BNC)
4	HD digital output
5	VGA output
6	Audio Input
7	LAN Port
8	USB
9	RS-485 PORT
10	Alarm(optional)
12	DC12 Power Input
12	Power Switch

- RS-485 port/DC12 Power Input



3. Installation Illustration



■ Video input

Input interface is BVC type; input signal is PAL/NTSC BNC（1.0VP-P · 75Ω）. The Video signal should comply with national standards, a higher signal to noise ratio, low distortion, low-interference; clear images, no deformation, nature color and appropriate brightness.

◆ Make sure stable and reliable signals from cameras

Cameras should be installed in a suitable position to avoid backlighting, low-light environment, or adopts the better BLC, low-light cameras.
Cameras and digital video recorders should be common ground, stably and reliably, in order to ensure the normal operation of the cameras.

◆ Make sure the transmission cables are stable and reliable

Adopt high-quality, well-shielded coaxial cables, and choose the right model based on the transmission distance. If the distance is too far, use shielded twisted pair, video compensation equipment, optical transmission and other ways to ensure signal quality based on the specific circumstances.
Video cable should avoid strong electromagnetic interference with other devices and circuits, in particular, should avoid the current of high voltage.

Cables and shielded cable should be well-connected firmly to avoid false, joint welding or oxidation.

■ Connections for video outputs

The video outputs include PAL/NTSC BNC(1.0VP-P · 75Ω), VGA and HDMI interfaces.
Pay attention to the following when you select a PC display instead of a monitor.

1. Do not remain switched on for a long time to extend the life of the equipment;
2. Regular degaussing will help to maintain the normal operation of the monitor.
3. Keep away from equipment with strong electromagnetic interference.

Using TV as video output device is an unreliable alternative. It is also required to minimize the time of use and strictly control the power, the interference caused by neighboring devices. Leakage risks of low quality TVs may result in damage to other equipments.

- Audio Inputs

  Voice input impedance is high, so the microphone must be a microphone connected to the power supply.
  Like video input, voice transmission cables should avoid interference, fake, poor contact, and special attention to prevent the current of the high-voltage.

- Audio Output

  The audio output parameters of DVR are generally greater than 200mv 1KΩ (BNC), you can directly connect to the low impedance headphones, powered speakers or other sound devices through a power amplifier.
  When the external speakers and microphones cannot achieve spatial segregation, it is prone to the phenomenon of whistling.
  You may adopt following actions:
  1. Using better directional microphones
  2. Adjust the speaker volume to make it lower than the value of the generated howling.
  3. Using sound-absorbing materials for decoration to reduce sound reflections and improve the acoustic environment;
  4. Adjusting the layout of the microphone and speakers can reduce the whistling.

- AlarmIn/AlarmOut connections

  Pay attention to the following before installation.
  1. AlarmIn
     (a) Alarm input is grounding alarm input
     (b) The alarm input signals require voltage signals to the ground
     (c) When the alarm device is shared with two DVRs or connected to a DVR and other devices, it should be isolated by relays.

  2. Alarm OUT
     The alarm output of the DVR cannot be connected with high-power load (no more than 1A). In the output circuit, be careful about the excessive current that may cause damage to the relay. When using high-power load, extra relays are needed.

- RS-485 connection
  1. Connect RS-485 cable of the speed dome to the RS-485 interface of DVR, pay attention to the positive and negative signals.

  2. Connect the video output cable of the speed dome to the DVR video input

F. Q & A and Maintenance

1. Q & A

Q 1. After power on, DVR doesn’ t work.

A: The possible causes:

1. Wrong power input
2. bad connection of power cable
3. Power error
4. Firmware update error
5. Disk error or cable problem
6. Front panel error
7. Main PCB board error

Q 2. After power-on, DVR will restart after several minutes or the screen freezes.

A: The possible causes:

1. Unstable or low input voltage
2. The hard drive has bad sectors or cable error
3. Low adaptor power
4. Front video signal not stable
5. High temperature, too much dust and the machine runs in a bad condition.
6. DVR hardware error

Q 3. HDD not found after power-on

A : The possible causes:

1. No power for the Hard Drive
2. Hard Drive cable error
3. Hard Disk error
4. Main board SATA slot error

Q 4. No output: Single, multiple or all channels

A : The possible causes:

1. Wrong firmware: Update to the right firmware
2. Brightness set to 0: set it to the default value
3. No signal input or signal too weak
4. Mask used
5. DVR hardware error

Q 5. Live video problems: Such as bad colors, brightness error, image blink…
A : The possible causes:
1. When using BNC as output, wrong NTSC/PAL matching will result in B/W image.
2. Impedance mismatch between digital video recorder and monitor.
3. Video transmission distance is too far or video transmission line attenuation is too much.
4. Wrong settings of colors, brightness in the DVR

Q 6. No recorded file in local side
A : The possible causes:
1. Wrong data cable or jumper error in the hard disk
2. Hard Disk error
3. Upgraded firmware cannot recognize the existing file system
4. Desired files are overwritten
5. Recording not enabled

Q 7. Bad image when playback
A : The possible causes:
1. Low recording quality
2. Once data error when reading or small bit-rate or fuzzy when playback, please reboot machine
3. Wrong data cable or jumper error in the hard disk
4. Hard Disk error
5. DVR hardware error

Q 8. No audio sound
A : The possible causes:
1. Not powered-microphone
2. Not powered-speaker
3. Audio cable error
4. DVR hardware error

Q 9. Live video with audio, but no sound when playback
A : The possible causes:
1. Wrong setting: audio not enabled
2. No video to the paired channels; when the screen is blue, playback will be choppy.

Q 10. Wrong time
A : The possible causes:
1. Wrong settings
2. Bad battery connection or low voltage
3. Bad frequency oscillator

Q 11. DVR can not control PTZ

A : The possible causes:

1. PTZ error
2. Wrong settings, cabling and installation for the PTZ
3. Wrong wiring
4. Wrong PTZ settings in the DVR side
5. Protocols mismatch between PTZ and DVR
6. Mismatch between PTZ decoder and DVR ID address
7. When connected to several decoders, the farthest AB line of PTZ decoder must add a 120 ohm resistor to eliminate reflection and impedance matching, otherwise it will make PTZ unstable.
8. Distance beyond limitation

Q 12. Motion detection not function

A : The possible causes:

1. Wrong schedule setting
2. Wrong area setting
3. Low sensitivity
4. Hardware limitation for different version

Q 13. Fail to login by using client software or Web browsers

A : The possible causes:

1. Operating system is Win98 or Win Me and the client software cannot be installed or displayed normally; Upgrade the operating system to Win2000sp4 or above, or use lower versions of the client software.
2. ActiveX control blocked; install the ActiveX control in the attached CD.
3. DX8.1 or above not installed; upgrade the display driver.
4. Networking error
5. Wrong Networking settings
6. Wrong user/password
7. Wrong client software for the DVR firmware

Q 14. Mosaic or no video when Network preview and file playback

A : The possible causes:

1. Network traffic jam
2. Bandwidth limitation in the DVR side
3. Group mode is used in the DVR networking setting. More mosaics in group mode, not recommended.
4. Masks or channel protection in DVR side
5. No rights for the user account
6. Bad DVR output

Q 15. Networking not stable

A : The possible causes:

1. Networking not stable
2. IP conflict
3. MAC conflict
4. LAN card error (PC/DVR)

Q 16. USB backup error

A : The possible causes:

1. CPU too busy to back up the data! Stop recording then backup!
2. Device not compatible
3. Backup device error

Q 17. DVR cannot be controlled by the keyboard

A : The possible causes:

1. DVR has wrong port setting
2. Wrong address
3. Low power for use; each adaptor need to be powered.
4. Transmission distance is too far

Q 18. Alarms cannot be stopped

A : The possible causes:

1. Wrong alarm settings
2. AlarmOut turned on manually
3. Input equipment error or wrong connections.
4. Wrong firmware problem; Upgrade firmware to fix it.

Q 19. Alarms do not work

A : The possible causes:

1. Wrong alarm setting
2. Wrong alarm wiring
3. Wrong AlarmIn signal
4. One alarm equipment involves into two loops.

Q 20. The remote controller cannot work

A : The possible causes:

1. Wrong control address
2. Long distance or poor angle
3. Battery run out
4. Controller or DVR front panel is out of order

Q 21. Short recording time

A : The possible causes:

1. Bigger data rate from poor camera quality, dirty lens, backlight installation, bad aperture adjustment.
2. Small HDD storage
3. HDD damage

Q 22. Download files cannot be played back.

A : The possible causes:

1. No player
2. No graphic accelerator with DX8.1 or above
3. Save as AVI files and play with MEDIA PLAYER

Q 23. Forget the administrative password or internet password

A : The possible solution:

1. Please contact local customer service staff or call the customer service phone headquarters, we will guide you how to solve by the machine type and version of the program.

2. Maintenance

- Damped dust on the PCB board will cause a short circuit and will do something wrong to the DVR or damage it. For long-term stability of the DVR, regularly brush the circuit boards, connectors, fans and chassis to remove dust.
- Please ensure the project is well-grounded, so images, audio signal will not be disturbed. At the same time, we can protect the DVR from static or inductive voltage damage.
- Do not remove audio/video cables and RS-484 when the DVR is powered on, or they will be damaged.
- Do not use the TV interface in the DVR video output (VOUT), or the DVR output circuit will be damaged easily.
- Do not turn off the power switch directly to shut down the DVR. Use the menu shutdown or OFF button on the front panel (press more than three seconds) to turn off the power automatically to avoid hard Drive crash.
- Keep the DVR away from heats and hot places.
  Keep the DVR chassis well-ventilated for better heat dissipation.
- Have regular checks and system maintenance

G. Appendix : Specifications

1. 8 CH 960H H.264 DVR

Video	Input	BNC video	8 channel BNC(1Vp-p 75Ω)
	Output	VGA	Yes
		High Definition	Yes
		Analog CVBS	1 channel / BNC
		SPOT	No
Audio	Input		4CH Input(W/ 2-Way Audio)
	Output		1 channel output
	Audio format		G.711A
Alarm	Sensor input		4CH Input, Normal Open/ Close (Option)
	Alarm output		1CH Output(Option)
Live View	Resolution		960H
	Digital Zoom		Area selected by mouse dragging
	Switching		Auto-switching: 5-120 seconds
Recording	Compression		H.264
	Resolution		Each Channel can individual setup for 960H/D1/HD1/CIF
	Frame per second		8CH 960H @14FPS/CH(NTSC)；8CH 960H @12FPS/CH (PAL) 8CH D1 @30FPS/CH(NTSC)；8CH D1 @25FPS/CH (PAL)
	Recording quality		Lowest, Low, Normal, Good, High, Highest
	Recording mode		Continuous/ Schedule/ Motion/ Alarm/ Manual
	Motion detection		By grid setting, motion area can be (16*12)blocks
	Pre-recording		1-30 seconds
	Post-recording		10-300 seconds
Display mode			Single, Quad, 8-Split, 9-Split, Sequence
Backup	Formats		AVI / use defined format
	Media interface		USB/Network
	Player		Yes
Networking	Stream		960H/D1/HD1/CIF / QCIF
	Playback		YES
	Network protocols		HTTP、DHCP、DDNS、NTP、SMTP、FTP、DNS、UPNP、PPPoE、IP rights、IP search
	Browsers		IE、Chrome、Firefox、Safari
Storage	Hard Drive	Interface	SATA
		Capacity	Support single 4TB hard drive
		SATA ports	1pcs
	Mirror		No
	External storage		Support synchronized recording to USB storage
	File system		Stable reliable private file system
	S.M.A.R.T		HDD error detecting
User interface	Menu		Graphical user interface: VGA & CVBS & HD outsimultaneously
	Methods		Front panel, remote controller, mouse
Serial port	PTZ & keyboard		Pelco-D / Pelco-P (RS-485)

Network port	Ethernet	1*RJ-45, 10/100 Base-T
	Web browsing	Live view, search/playback, backup, PTZ, remote setup/update
Other functions	Daylight saving time	YES
	Buzzer	Motion、Alarm、Video Loss、HDD Error
	Languages	Yes, more than 20 languages
	Firmware update	USB update, Remote Network update
	Network time protocol	YES
	Smart phone support	iPhone, Android
		Support monitoring (including audio), playback.
	Intelligent functions	YES. Motion detection, removals, entry/eriting detection
	Central Management System	YES
	Hybrid(Digital & Analogue)	YES
General Specifications	Operating conditions	0 to 46 ℃, humidity 20 to 80%
	Power	DC 12V / 2A(AC100V~240V 50/60HZ)
	Net weight (total weight)	1.6kgs (not including HDD and Power Adapter)
	Dimensions	220mm x 288mm x 48mm (W x L x H)

★ Product specifications are subject to change without notice; please contact us for the latest information.

2. 4 CH 960H H.264 Real-Time DVR

Video	Input	BNC video	4 channel BNC(1Vp-p 75Ω)
	Output	VGA	VGA (Max. 1920x1080)
		High Definition	High Definition (Max. 1920x1080)
		Analog CVBS	1 channel
		SPOT	No
Audio	Input		4 channel inputs (including two-way audio)
	Output		1 channel output
	Audio format		G.711A
Alarm	Sensor input		4CH Input, Normal Open/ Close (Option)
	Alarm output		Sensor, Motion, Video Loss、1CH Output(Option)
Live View	Resolution		960H
	Digital Zoom		Area selected by mouse dragging
	Switching		Auto-switching: 5-120 seconds
Recording	Compression		H.264
	Resolution		Each Channel can individual setup for 960H/D1/HD1/CIF
	Frame per second		4 CH 960H @30FPS/CH(NTSC) ; 4 CH 960H @25FPS/CH (PAL)
	Recording quality		Worse, poor, fair, good, very good, Nice
	Recording mode		Always, Schedule, Motion, Alarm, Manual.
	Motion detection		By grid setting, motion area can be (16*12)blocks
	Pre-recording		1-30 seconds
	Post-recording		10-300 seconds
Display Mode			Single, Quad, Sequence
Backup	Formats		AVI/ User defined
	Media interface		USB/network
	Player		Yes
Networking	Stream		960H/D1/HD1/CIF / QCIF
	Playback		YES
	Network protocols		HTTP、DHCP、DDNS、NTP、SMTP、FTP、DNS、UPNP、PPPoE、IP Authorization、IP Search
	Browsers		IE、Chrome、Firefox、Safari
Storage	Hard Drive	Interface	SATA
		Capacity	Support single 4TB hard drive
		SATA ports	Max. 1 disk
	Mirror		No
	External storage		Support synchronized recording to USB storage
	File system		Stable reliable private file system

	S.M.A.R.T	Disk error check
User interface	Menu	Graphical user interface; VGA & CVBS out at the same time
	Methods	Front panel, remote controller, mouse
Serial port	PTZ & keyboard	Pelco-D / Pelco-P (RS-485)
Network port	Ethernet	1*RJ-45, 10/100 Base-T
	Web browsing	Live view, search/playback, backup, PTZ, remote setup/update
Other functions	Daylight saving time	YES
	Buzzer	Motion、Alarm、Video Loss、HDD Error
	Languages	Yes, more than 20 languages
	Firmware update	USB update, remote network update
	Network time protocol	YES
	Smart phone support	iPhone, Android
		Support 4 ch monitoring (including audio), playback.
	Intelligent functions	YES. Motion detection, removals, eniting/exiting detection
	Central Management System	YES
	Hybrid(Digital & Analogue)	YES
General Specifications	Operating conditions	0 to 46 ℃, humidity 20 to 80%
	Power	DC 12V / 2A(AC100V~240V 50/60HZ)
	Net weight (total weight)	1.6kgs(not including HDD and Power Adapter)
	Dimensions	220mm x 288mm x 48mm (W x D x H)

★Product specifications are subject to change without notice; please contact us for the latest information.

3. 4 CH 960H H.264 DVR

Video	Input	BNC video	4 channel BNC(1Vp-p 75Ω)
	Output	VGA	VGA (Max. 1920x1080)
		High Definition	High Definition (Max. 1920x1080)
		Analog CVBS	1 channel
		SPOT	No
Audio	Input		4 channel inputs (including two-way audio)
	Output		1 channel output
	Audio format		G.711A
Alarm	Sensor input		4CH Input, Normal Open/ Close (Option)
	Alarm output		Sensor, Motion, Video Loss、1CH Output(Option)
Live View	Resolution		960H
	Digital Zoom		Area selected by mouse dragging
	Switching		Auto-switching: 5-120 seconds
Recording	Compression		H.264
	Resolution		Each Channel can individual setup for 960H/D1/HD1/CIF
	Frame per second		4CH 960H @24FPS/CH(NTSC)；4CH 960H @22FPS/CH (PAL) 4CH D1 @30FPS/CH(NTSC)；4CH D1 @25FPS/CH (PAL)
	Recording quality		Worse, poor, fair, good, very good, Nice
	Recording mode		Always, Schedule, Motion, Alarm, Manual.
	Motion detection		By grid setting, motion area can be (16*12)blocks
	Pre-recording		1-30 seconds
	Post-recording		10-300 seconds
Display Mode			Single, Quad, Sequence
Backup	Formats		AVI/ User defined
	Media interface		USB/network
	Player		Yes
Networking	Stream		960H/D1/HD1/CIF / QCIF
	Playback		YES
	Network protocols		HTTP、DHCP、DDNS、NTP、SMTP、FTP、DNS、UPNP、PPPoE、IP Authorization、IP Search
	Browsers		IE、Chrome、Firefox、Safari
Storage	Hard Drive	Interface	SATA
		Capacity	Support single 4TB hard drive
		SATA ports	Max. 1 disk
	Mirror		No
	External storage		Support synchronized recording to USB storage

	File system	Stable reliable private file system
	S.M.A.R.T	Disk error check
User interface	Menu	Graphical user interface; VGA & CVBS out at the same time
	Methods	Front panel, remote controller, mouse
Serial port	PTZ & keyboard	Pelco-D / Pelco-P (RS-485)
Network port	Ethernet	1*RJ-45, 10/100 Base-T
	Web browsing	Live view, search/playback, backup, PTZ, remote setup/update
Other functions	Daylight saving time	YES
	Buzzer	Motion、Alarm、Video Loss、HDD Error
	Languages	Yes, more than 20 languages
	Firmware update	USB update, remote network update
	Network time protocol	YES
	Smart phone support	iPhone, Android
		Support 4 ch monitoring (including audio), playback.
	Intelligent functions	YES. Motion detection, removals, eniting/exiting detection
	Central Management System	YES
	Hybrid(Digital & Analogue)	_
General Specifications	Operating conditions	0 to 46 ℃, humidity 20 to 80%
	Power	DC 12V / 2A(AC100V~240V 50/60HZ)
	Net weight (total weight)	1.6kgs(not including HDD and Power Adapter)
	Dimensions	220mm x 288mm x 48mm (W x D x H)

★Product specifications are subject to change without notice; please contact us for the latest information.

Manufacturer :

FUHO TECHOLOGY CO., LTD.

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